

**REMARKS**

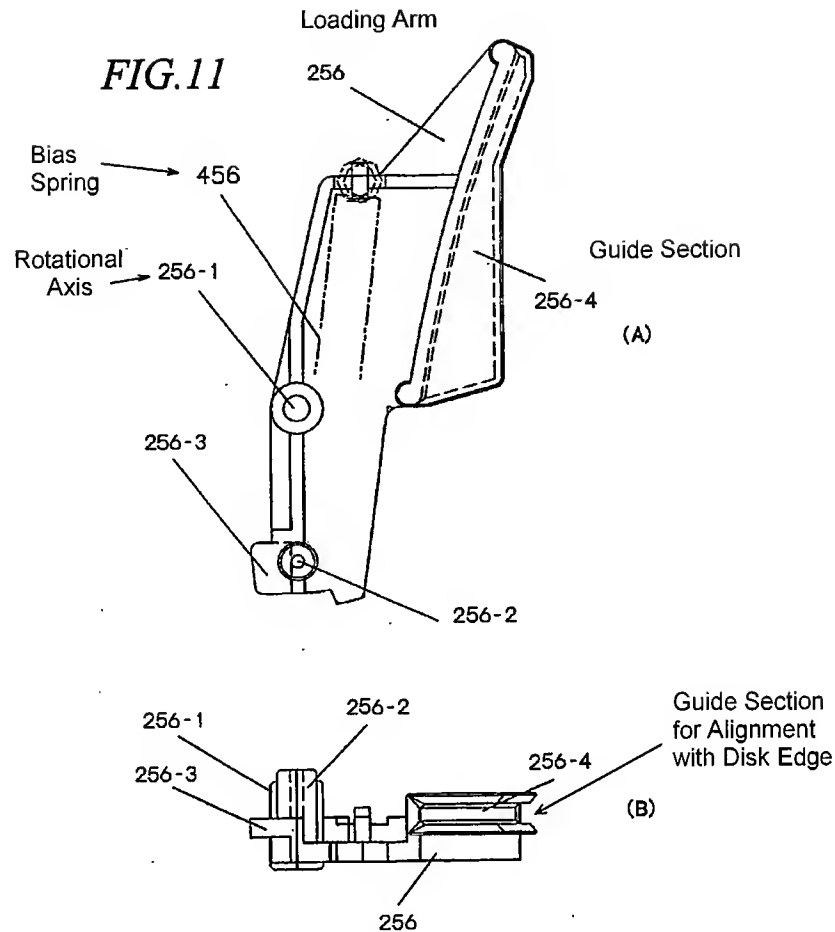
The Office Action indicates that the subject matter of Claims 10 and 12 would be allowed if rewritten in independent form. Applicant requests that this allowance of subject matter be held in abeyance pending a review of our current claims and the following comments.

The Office Action asserted that it took a relatively broad interpretation of our claim language and applicant has attempted to address this issue in response to the 35 U.S.C. §112, second paragraph objection by an amendment to the claims.

The present invention resides in a relatively crowded field with a large number of international companies attempting to provide competitive advantages in a very compact space for a disk device capable of being mounted within the dashboard of a vehicle. As can be readily appreciated, our design, as shown in Figure 1 receives a disk D through rollers positioned on the left side of the chassis and enters via the dotted lines. The disk is progressively moved for operatively mounting within a tray 250 that can move up and down, and which is finally positioned adjacent the right side of the chassis.

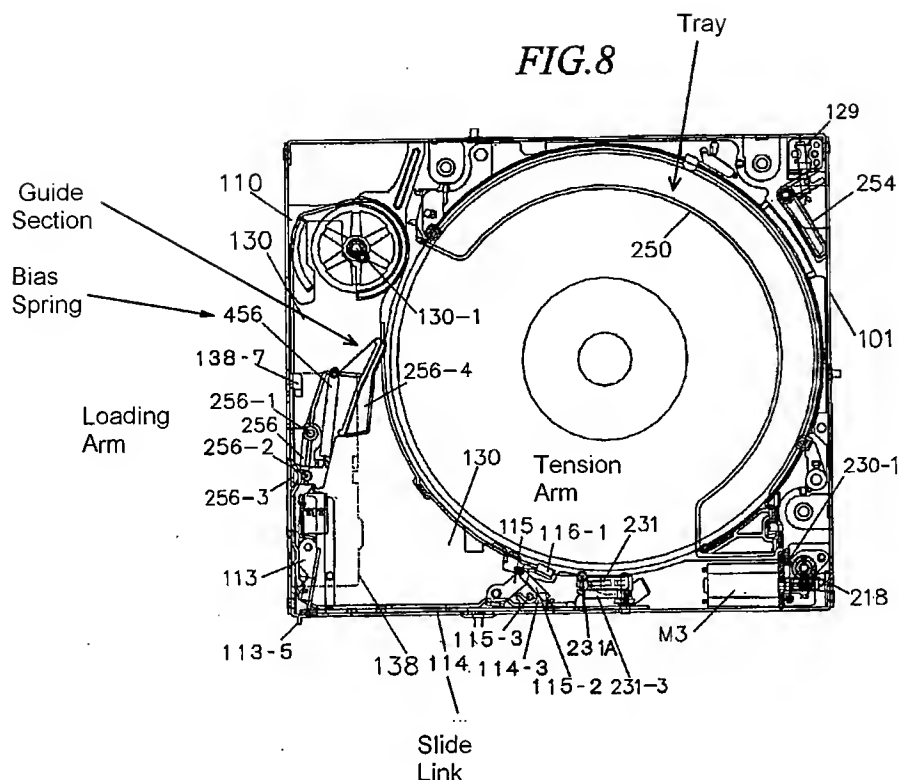
As also can be seen initially in Figure 1, our loading arm 256 has a guide section 256-4 that is utilized for providing this relatively curved movement of the disk from entrance to the tray 250.

The function of this loading arm 256 having a guide section 256-4, can be relatively appreciated by reference to Figures 11(A) and (B) as follows:



The side view of Figure 11(B) discloses the receptacle guide function at the end of the loading arm 4 for contacting and guiding an edge of disk in its insertion and ejection movements through the chassis.

As seen in Figure 8, a bias spring 456 is utilized to bias the loading arm 256 and the guide section 256-4 with a connection to the link arm 113.



The operation loading arm can be summarized in the specification in Paragraph [0102] as follows:

[0102] As shown in FIG. 8 and FIG. 9, the loading arm 256 is engaged rotatably with an axis 256-1 calked with an upper left section of the pick chassis 110. The loading arm 256 is biased clockwise by a spring 456 provided between the loading arm 256 and the pick chassis 110. Further, a boss section 256-2 and a protruding section 256-3 are formed in front of the left side of the loading arm 256. The boss section 256-2 and the protruding section 256-3 abut on the inside of the restricting sections 138-3, 138-4 or of the left side face 138-6 in accordance with sliding movement of the pick swing cam plate 138, whereby the rotation angles of the boss section 256-2 and the protruding section 256-3 are set (see FIG. 18). Furthermore, as shown in FIG. 11, on the loading arm 256, there is provided a guide section 256-4 in the form of substantially a reversed C which changes the direction of the disk D when the left edge of the disk D to be inserted/ejected abuts thereon and at the same time passes therethrough (see FIG. 1).

The overall operation can be appreciated starting at Paragraph [0130] of our specification, where during a disk insertion operation, a disk edge will be aligned and abutting on

the guide section 256-4 of the loading arm whereby the direction of movement of the disk will be changed so that it moves towards the tray 250 and the loading arm can rotate and press the disk edge for entrance into the tray 250.

The same motion occurs during an ejection of the disk in Paragraph [0131] where the disk is pushed out from the tray 250 and contacts the guide section 256-4 so that the direction of the movement of the disk is then changed to engage the rollers at the disk insertion opening.

The bias force of the spring 456 acts on our loading arm 256 to cause the guide section of the loading arm 256 to redirect an entering disk or an exiting disk and to bias the movement towards the tray 250.

Of particular importance to the Office Action rejection and its interpretation of the respective “arms” in each of the references occurs when our pick arm 130 is moved into a split tray 250 in such an action as described in Paragraph [0139] and shown in Figure 18(B), our loading arm 256 is rotated counterclockwise against the bias force of the spring, and our guide section 256-4 of the loading arm is withdrawn from the disk D that is moving up and down when there is a splitting of the trays. When the disk is played, see Paragraph [0145], it is sandwiched by a clamper 125 and the turning table 123. In such an environment, our loading arm, as shown in Figure 18(C) rotates against the bias force of the spring 456 so that it is removed from the disk and positioned on the left hand side of the chassis.

As noted in Paragraph [0148], at the end of the playing of a disk, our loading arm 256 can be again rotated by the bias force of the spring so that the edge of the disk is held by the guide section 256-4 and can again assist in loading the disk into the tray.

This description of our loading arm can be summarized as follows, in paragraph [0160]:

[0160] According to the present embodiment described above, the disk D, which has moved from the position of the disk insertion opening 101-7,

abuts on the guide section 256-4 of the loading arm 256 and changes the direction thereof to the tray 250 side. At this moment, the loading arm 256 rotates, whereby the disk D is led to the tray 250 side and thus housed reliably in the tray 250. Especially, since the loading arm 256 is biased by the spring 456, thus the force for pushing into the tray 250 can be secured. The same is true for the case of biasing when the disk D is ejected. Furthermore, when playing the disk D, the loading arm 256 is rotated and the guide section 256-4 withdraws from the disk D, thus collision with the disk can be avoided.

Claims 1, 4-9, 13, 15 and 16 were rejected as being anticipated by *Mitchimori et al.* (U.S. Patent Publication 2002/0036976).

“An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention.” *See In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 678, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

Applicant respectfully submits that a person of ordinary skill in this field would readily appreciate that the Office Action is misconstruing the basic function of our loading arm as defined in our claims and has mistakenly sought to utilize a damper arm 7, which carries at one end, a clamper 6. See, for example, Figure 11 of *Michimori et al.*.

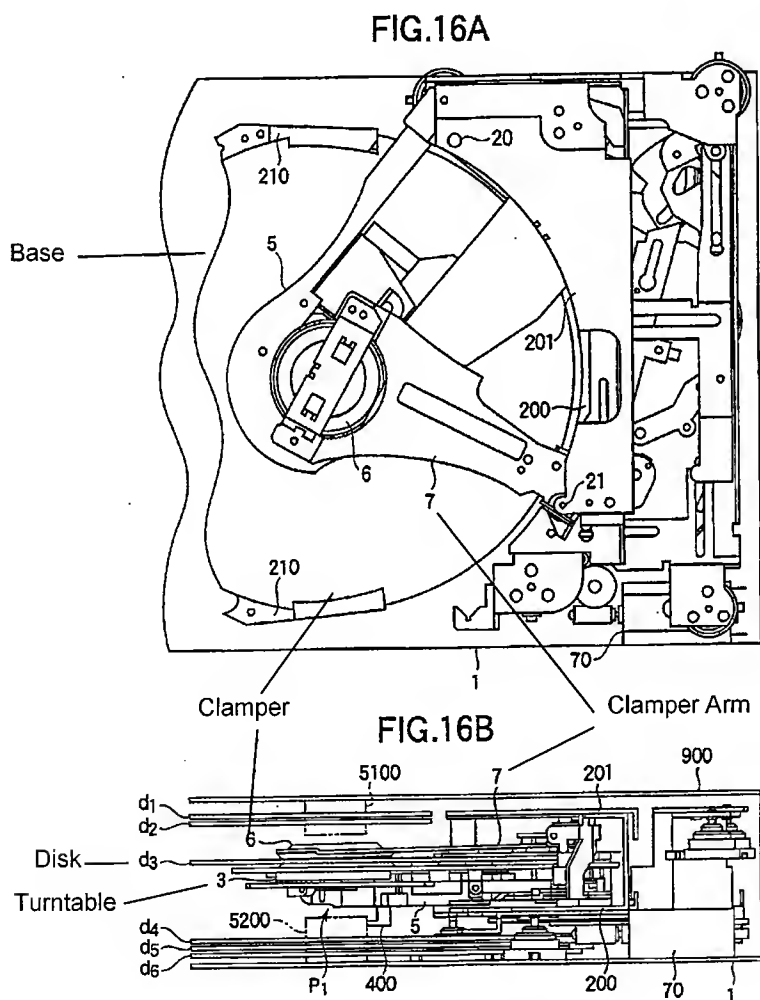
Also with regards to Figure 11, a careful understanding of the operation of the playback base 5 shown at the upper left hand corner of Figure 11, and the damper arm 7 or clamper arm 7, which carries the clamper 6 is shown on the upper right hand side of Figure 11. The arrows P, P' and R, R' disclose the relative and separate rotational movements of the respective base member 5 and the damper arm 7. The playback base 5 carries a turntable 3 which is to be translated between the trays when the trays are spread apart. The playback base will be aligned under a particular disk, d<sub>3</sub>, and as shown in Figure 13(A), can be rotated for a play position within the spreading of the respective other disks d<sub>1</sub> through d<sub>6</sub>.

Figure 13(B) discloses the rotation of the base plate 5 and the position of the turntable 3.

Figure 14(A) shows the operative position of the playback base.

Figure 15(A) shows the subsequent rotation of the clamber arm positioned over the disk  $d_3$  as resting on the turntable 3 shown in Figure 15(B).

Finally, the following Figures 16(A) and 16(B) show the clamber arm clamping down on top of the disk to enable a securement of the disk  $d_3$  to the turntable 3.



This is summarized in the Description of the Invention as follows:

[0010] Furthermore, after the clamber secures the selected disc to the turntable, the translating mechanism moves away from the disc holding/separating mechanism to move the turntable from the first position to the second position.

[0077] When the clamper 6 is conveyed to its clamping position, disc clamp mechanism (not shown) causes the clamper arm 7 to swing towards the disc surface, whereby the clamper 6 urges the selected disc  $d_{sub.3}$  against the turntable 3, as shown in FIGS. 16A and 16B. When the selected disc is clamped, the translating plate 200 slides in the direction of the arrow X', in a manner as illustrated in FIGS. 17A and 17B. Then, the turntable 3 on which the selected disc  $d_3$  is clamped as well as the clamper 6 are retracted from the first position  $P_1$  to the second position  $P_2$ , allowing the disc playback operation to be initiated. At this time, the pawls 67k, 67m and 67n are removed from the pawls 2k, 2m and 2n of the sub-base 2, whereby the sub-base 2 is supported in a floating manner by the vibration absorbing members 30.

Finally, as can be seen in Figures 17(A) and 17(B), both the base plate and the clamper arm 7 are moved to release the disk for a playing operation.

A person of ordinary skill in this field would readily recognize that the purported advantage of *Michimori et al.* is having a relatively thinner disk storage system with trays and an operation of the clamper arm moving toward and away from a disk holding separating mechanism by a completely separate movement from that of the playback base 5 to conserve space. Additionally, the movement is not aligned in the same plane as the disk,  $d_3$ , and cannot provide a similar guidance as our invention.

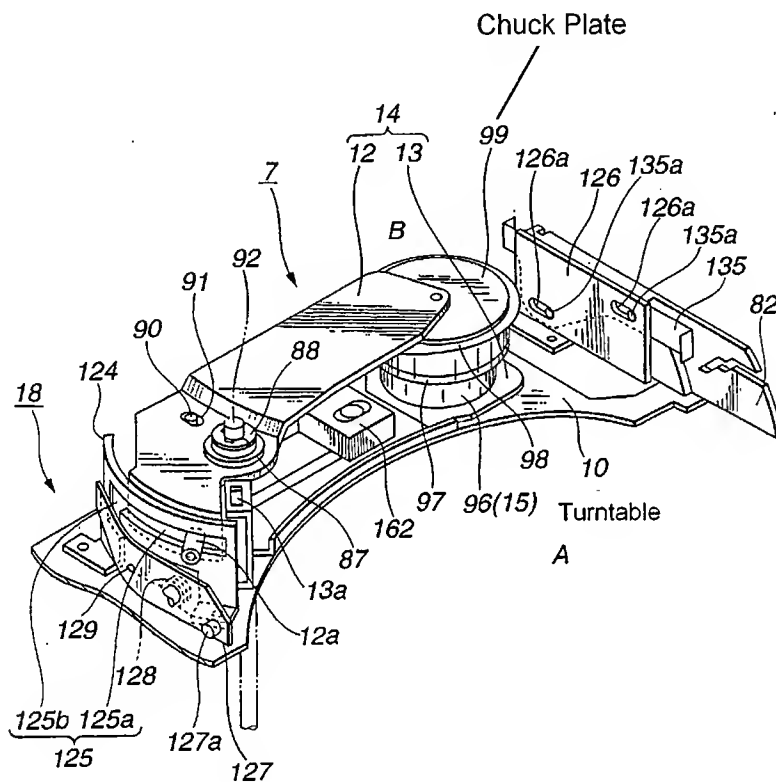
Claims 1, 2 and 5 were further contended to be anticipated by *Watanabe et al.* (U.S. Patent No. 6,751,181.

In this regard, the Office Action contended that the loading arm of our claims is in essence the "upper arm 12" in the *Watanabe et al.* disclosure.

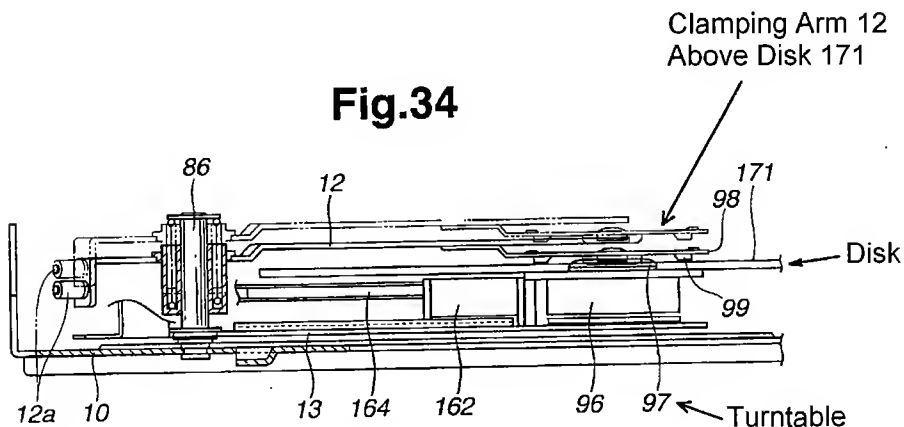
Again, a person of ordinary skill in the field would readily appreciate that the upper arm 12, like the clamper arm 7 of the *Michimori et al.* disclosure is simply used for clamping a disk on the turntable. They do not provide the function of the loading arm of the present invention, which can offset the insertion and ejection path of a disk by abutting an edge of the disk during those movements, as accomplished by our current claims.

The upper arm 12 of *Watanabe et al.* can be seen in Figure 7 and its relative movement is determined by the guide paths of the pin 12a in the camming openings 125 as shown in Figure 7. Biasing springs, seen in more detail in Figure 8, can provide the clamping action as seen in Figure 34.

**Fig.7**



**Fig.34**





This action is described, for example, in Column 21, Line 60 to Column 22, Line 3:

When the outer slider 140 is moved forward to have the pin 22*b* in a position (H) as the fourth step as shown in FIG. 16(*b*), the pin 2*d* of the selected tray 2 is lowered in the middle stage engagement 82*k*, so that the selected tray 2 and CD are lowered to place the selected CD on the turntable 97 as shown in FIG. 25. Substantially simultaneously, the separating cam 82 is moved forward together with the outer slider 140 to operate the restriction means 18, which lower the upper arm 12 of the hold means 14 through operation of the hold spring 89, holding the selected CD between the turntable 97 and the chuck plate 99.

As can be seen from our amended claims, our loading arm abuts an edge of the disk, moving between a disk insertion position and a disk housing section and leading the disk to the disk housing section side or the disk insertion position. Additionally, our loading arm has a withdrawal position for withdrawing a disk when the disk unit is not inserted into the disk housing sections.

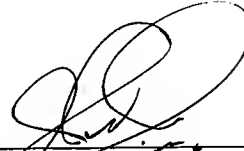
Our control member defines the drive power for providing an operation of a loading arm which is certainly neither anticipated nor suggested by either of the cited references, alone or in combination.

With a full technical understanding of the cited references and our own disclosure, it is respectfully submitted that we have provided a unique and patentable invention in a relatively crowded field of endeavor, that is worthy of the granting of a U.S. patent.

If the Examiner believes a telephone conference will assist in the prosecution of the case,  
the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

**SNELL & WILMER L.L.P.**

A handwritten signature in black ink, appearing to read 'Joseph W. Price', is written over a horizontal line.

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